



THE ROLE OF NEGOTIATION IN REDUCING RISKS IN CONSTRUCTION PROJECTS: A *BRAZILIAN CASE*

Murillo Dias*

Fundação Getulio Vargas, Brazil.

Abstract

The article conducts a single case study through descriptive methods to analyze how the construction project acquired its electrical kits. The construction project in Indaiatuba Brazil needed pre-assembled electrical kits through its concrete wall construction method so it required urgent procurement of these components. The procurement team dealt with an intricate negotiation situation because different suppliers provided different price points and delivery conditions and product quality levels. The negotiation process of the team encountered unexpected obstacles which endangered the project timeline. The team needed to create new solutions which would safeguard project essential requirements when managing project value exceeding millions of dollars. The research investigates negotiation methods which show how stakeholders use risk management to reach their objectives while obtaining maximum value. The procurement team remains uncertain about their outcome because they need to complete a contract that meets project needs but they face major challenges to overcome.

Keywords:

Negotiation; Procurement; Supply Chain Management; Contract Negotiation.

1. Introduction

Organizations need negotiation skills as their main competency to achieve success in today's business world. Dias (2020) identifies four negotiation approaches yet Type II negotiation represents the fundamental method which business organizations need to use. The model follows a systematic method which helps parties work together to achieve beneficial results for all involved. The field enables Type II negotiation through three fundamental research studies which validate its successful application. Bazerman and Moore (1994) showed how personal opinions affect managerial choices and Fisher and Ury (1981) established that principled negotiation produces agreements which last while Lax and Sebenius (1986) explained how negotiation processes experience conflicting forces between teamwork and competition. Research findings show that Type II negotiation works

* Corresponding author email: agenda.murillo@gmail.com



successfully across different business environments. The research by Dias et al. (The research by (2022) shows that trust and reputation operate as non-physical assets which impact the outcomes of negotiation processes. The research by Dias et al. (2023) shows that nonverbal body language through hand movements determines the success of negotiation dialogues. The Type II negotiation approach shows its effectiveness by working between construction (Dias, 2023) and retail pharmacy (Valente & Dias, 2023) and government procurement (Dias & Navarro, 2020) sectors. Sebenius (2013) develops Level II negotiations which require negotiators to help their counterparts build stronger BATNA (Best Alternative to a Negotiated Agreement) to create mutually beneficial agreements. Business negotiations depend on Type II negotiation as their fundamental framework which receives support from both theoretical and practical research. Organizations that follow these principles will improve their decision-making abilities while building stronger partnerships which result in sustainable effective outcomes, as illustrated in the following Figure 1:



Figure 1 The Four-Type Negotiation Matrix
Source: Dias, 2020. Reprinted under permission.

2. Materials and Methods

The research design of this study employed qualitative methods according to Saunders et al. (2009). The research design consists of a descriptive single-case study which analyzes the negotiation between a telecommunications company and their client during a consumer lawsuit according to Yin (2004). The case study research method enabled researchers to study negotiation processes in depth because it revealed all the intricate elements that affect the process. The single-case design allows researchers to study the complete environment of the negotiation process which generates detailed information about the situation. The research participants received complete protection through the use of their actual names and business identities which remained confidential. The research team obtained data through document analysis of negotiation records and conducted interviews with key stakeholders who actively participated in the negotiation process.

The researcher used inductive methods to analyze data which enabled them to discover patterns and themes in the collected information. The analysis process used interpretive methods to understand how participants in the negotiation process interpreted the situation. The research maintains complete transparency through its use of actual company names and employee identities from the original negotiation scenario. The research maintains its original negotiation context through this decision because it follows both compliance requirements and ethical research standards which protect the organizations and their stakeholders.

3. Context and Negotiation

The residential development project located in São Paulo's interior used concrete wall construction as its building method because this method has become popular in the industry for its operational efficiency and affordable costs. The project team needed to acquire pre-assembled electrical kits which consisted of cables and conduits and junction boxes because these kits needed to be inserted into concrete walls during construction. The project requires immediate procurement of these kits because they need to be placed inside concrete walls during construction. The procurement team faced an urgent situation because the acquisition request arrived after the optimal time which required them to find optimal pricing and delivery and quality terms. The project stakeholders defined three negotiation requirements which included using approved cable brands and checking supplier financial health and demanding suppliers to show finished project examples for product performance validation. The buyers evaluated five potential suppliers which included three approved vendors and two new vendors that needed homologation approval. The suppliers offered price quotes for 400 kits which ranged from R\$865,000 to R\$1,156,000 and required delivery times between 20 to 30 days. The project budget established R\$1,075,000 as its highest possible value. The project team selected the supplier who provided the most affordable price and met all delivery requirements and showed exceptional historical performance. The financial stability assessment of the supplier showed major outstanding debts while service quality reports showed a downward trend.

The project board ended the contract with this supplier relationship because the supplier demonstrated weak financial stability and unreliable delivery performance. The procurement team found an unapproved supplier who maintained their quote within the established budget parameters. The team held a direct meeting to establish all requirements while checking both technical and financial standards. The supplier provided three additional benefits to the agreement which included a price reduction to R\$1,065,000 and faster delivery within 20 days and immediate delivery of 30 kits within 10 days for testing purposes. A single technician was dedicated full time to monitor the first installation process while maintaining quality standards. The negotiation reached success through financial advantages and protective measures which defended against possible threats. The selected supplier fulfilled all necessary conditions at budget-friendly rates while bringing in a fresh business alliance that would assist upcoming initiatives.

4. Summary of Findings on the Negotiation Dynamics

The possible agreement range between R\$1,075,000 and R\$1,200,000 defined the ZOPA. The supplier provided technical support for installation to enhance quality assurance as part of the non-monetary value exchange. The supplier provided two delivery concessions which included shorter delivery times and early delivery of part of the order to help prevent project delays. The negotiation process followed stakeholder requirements by verifying brand approval and financial stability and project references. The supplier provided price reduction and improved delivery terms to the project stakeholders who accepted higher costs than the lowest bid for risk reduction purposes. The team evaluated three different options which included re-starting supplier negotiations and modifying budget restrictions and implementing standard electrical installation procedures. The case shows how procurement negotiations between financial evaluation and risk control and relationship-based trust work together. The project reached its objectives through supplier verification and non-financial agreements which transformed an unapproved supplier into a dependable business partner for upcoming projects.

5. Discussion and Implications

The case study shows how financial aspects in construction projects lead to intricate procurement negotiations because they influence trust development and risk management and organizational planning. Bazerman and Moore (1994) showed through their research that managers base their choices on personal judgment but their negotiation outcomes get influenced by mental distortions and restricted logical thinking (Weber, 2010). The procurement team chose to reject the supplier with the lowest bid because they wanted to evaluate financial stability factors which Raiffa, Richardson and Metcalfe (2002) describe as essential for scientific and artistic collaborative decision-making in negotiation. The research methods of Creswell (2014) and Saunders, Lewis, and Thornhill (2009) support the use of mixed-methods and case study approaches (Yin, 2004) to study complex negotiation processes. The research example demonstrates this method through the combination of quantitative budget data with delivery timeline information and qualitative assessments of trust and supplier reputation and reference check results. The research design follows Dess and Lumpkin (2003) who explained strategic management through the combination of financial resources with non-monetary business assets. The Four-Type Negotiation Matrix by Dias (2020) classifies this situation as Type II negotiations because it needs organized team work to develop shared advantages. The procurement team used structured evaluation methods for suppliers until they adopted situational approaches, as financial risks emerged, according to Dias (2020c).

The negotiation process involved two essential elements from Sebenius (2013), Fisher & Ury (1981), Pruitt (1981), and Lax & Sebenius (1986): the board's definition of budgetary agreement zones and suppliers' alternative options, which influenced their negotiation flexibility. The research by Dias and Lopes (2021) shows trust operates as the main regulatory system which produces negotiation outcomes by creating confidence that directs decision-making activities. The procurement team chose the supplier with the

highest price because of their financial instability which proved that trust functions as a vital business asset that goes beyond monetary value according to Dias et al. (2022) and Dias (2020b). Santos and Dias (2024) show that trust develops through open business operations and supplier reputation growth which now plays a critical role in supplier homologation. The new supplier gained credibility through direct contact which supported the research findings of Dias and his colleagues (2023) about nonverbal negotiation behaviors. The negotiation process needed dispute-resolution mechanisms (Dias, 2020d; Dias et al., 2023) to perform relational repair, which brought stakeholders and the new supplier into alignment. The negotiated concessions included price reductions, faster delivery, and technical assistance, which demonstrated mutual advantages, according to Shell (2006) and Salacuse (2003, 2006). The case study shows how nonmarket negotiation forces (Navarro & Dias, 2024) shape business decisions by leveraging external factors that impact corporate reputation and relationships.

The negotiation principles developed by Dias and his team (2020–2023) for healthcare and construction and government procurement simulations have achieved success in all settings. Research data shows financial elements do not determine negotiation success because trust-based relationships and reputation and adaptable negotiation techniques produce equivalent effects on findings. The research example shows how Zartman (1988) negotiation elements work through communication and relationship management and concession techniques which support Rubin and Brown's (1975) findings about human social interaction perception. The decision to choose reliability over cost demonstrates that Kissinger (1969) and Schatzki and Coffey (1981) endorse strategic planning for negotiations because it produces superior outcomes than focusing on short-term cost reduction. The case shows that successful project negotiations need established frameworks (Dias, 2020; Lax & Sebenius, 1986) and different research methods (Creswell, 2014; Yin, 2004) together with solid relationships between parties (Dias & Lopes, 2021; Santos & Dias, 2024). Organizations that manage financial constraints and non-monetary business assets will create partnerships which bring financial stability and strategic value.

6. Conclusion

The research shows that construction project procurement negotiations need more than financial analysis because they demand trust development and risk management and strategic planning. The case study showed that the supplier selection based on lowest price did not work because the company's financial instability and deteriorating service quality made them unacceptable for the project. The selection process demonstrates how organizations need to evaluate both physical assets and non-physical elements which include financial stability and reputation and trust during their negotiation activities. The stakeholders achieved project sustainability through their selection of reliability and long-term business potential instead of short-term cost reductions. The negotiation process showed that parties achieved a sustainable agreement through their willingness to make concessions which included price modifications and delivery accommodations and technical

assistance. The research demonstrates that successful negotiation requires more than price optimization because it needs to find economic stability through strategic sustainability.

7. Future research

Future research is encouraged on monitoring supplier relationships developed under financially unstable conditions will reveal the extended effects of risk-oriented business choices. Research is needed to examine the development of trust on virtual negotiation platforms as digital communication systems continue to expand their user base. Research into the development of virtual trust would allow scientists to develop new negotiation theories that can function on digital platforms. The research activities will strengthen negotiation theory while providing operational solutions to organizations that manage complex supply networks and global markets with financial constraints and relationship-based trust requirements.

Acknowledgements

We want to express our sincere gratitude to Marina Zonaro for providing the information that led to the development of this article. Her contribution was fundamental to the realization of this research and to the understanding of the negotiation process in question.

Ethical issues

The author states that this article raises no ethical issues or concerns about noncompliance. The research followed established ethical guidelines, protecting participants' identities and company names through anonymization to meet ethical standards and maintain confidentiality.

References

- Bazerman, M. H., & Moore, D. A. (1994). Judgment in managerial decision making. Wiley.
- Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.
- Cunha, N.C., Dias, M. (2021) Contract Negotiation: When the Detail Saved the Day.GSJ 9(12), 130-141; <https://doi.org/10.11216/gsj.2021.12.56418>
- Dess, G. G. & Lumpkin, G., 2003. Dirección estratégica. 1a. ed. McGrawHill.
- Dias, M, Leitão, R., Batista, R., Medeiros, D. (2022) Writing the Deal: Statistical Analysis of Brazilian Business Negotiations on Intangible Assets. European Journal of Business and Management Research, 7(1), 61-65; <https://doi.org/10.24018/ejbmr.2022.7.1.1233>

- Dias, M. (2020) The Four-Type Negotiation Matrix: A Model for Assessing Negotiation Processes. *British Journal of Education*, 8(5), 40-57. <https://doi.org/10.37745/bje/vol8.no5.p40-57.2020>
- Dias, M. (2020a) Is There Any Difference Between Night and Day Business Negotiations? A Statistical Analysis. *Journal of Xidian University*, 14(6), 2417 - 2430. <https://doi.org/10.37896/jxu14.6/287>
- Dias, M. (2020b) Predictive Model on Intangible Assets Negotiation: Linear Regression Analysis. *Journal of Xidian University*, 14(7), 1420-1433. <https://doi.org/10.37896/jxu14.7/161>
- Dias, M. (2020c) Structured versus Situational Business Negotiation Approaches. *Journal of Xidian University*, 14(6), 1591 - 1604. <https://doi.org/10.37896/jxu14.6/192>
- Dias, M. (2020d) The Effectiveness of Mediation in Brazilian Business Negotiations. *European Modern Studies Journal*, 4(5), 181-188. <https://doi.org/10.6084/m9.figshare.13066025>
- Dias, M. Navarro, R. (2020). Three-Strategy Level Negotiation Model and Four-Type Negotiation Matrix Applied to Brazilian Government Negotiation Cases. *British Journal of Management and Marketing Studies*, 3(3), 50-66. <https://doi.org/10.6084/m9.figshare.12479861>
- Dias, M., (2023) Teaching Materials on Warehouse Construction Negotiation. *International Journal of Business Management*, 6(9), 89-102, <https://doi.org/10.5281/zenodo.8396647>
- Dias, M., (2023a) Teaching Materials on Paint Shop Business Negotiation. *International Journal of Applied Management Science*, 4(9), 1-13, <https://doi.org/10.5281/zenodo.8396627>
- Dias, M., (2023b) Teaching Materials on Private Healthcare Negotiation. *International Journal of Social Science and Humanities Research*, 6(9), 105-117, <https://doi.org/10.5281/zenodo.8396612>
- Dias, M., (2023c). Teaching Materials on Security Technician Business Negotiation. *International Journal Of Educational Research*, 6(8), 12-27; <https://doi.org/10.5281/zenodo.8367744>
- Dias, M., (2023d). Role-Play Simulation on Locksmith Business Negotiation. *GPH International Journal of Social Science and Humanities Research*, 6(8), 44-56; <https://doi.org/10.5281/zenodo.8359959>

- Dias, M., Lopes, R., Cavalcanti, G., Golfetto, V. (2020) Role-Play Simulation on Software Contract Negotiation. *Global Scientific Journals*, 8(6), 1-10. <https://doi.org/10.11216/gsj.2020.06.40176>
- Dias, M., Lopes, R., Duzert, Y. (2020) Mapping the Game: Situational versus Structured Negotiations. *Saudi Journal of Economics and Finance*, 4(6): 271-275. <https://doi.org/10.36348/sjef.2020.v04i06.012>
- Dias, M., Lopes, R., Teles, A., Castro, A., Pereira, A. (2020) Teaching Materials on Extrajudicial Settlement Negotiation. *Global Scientific Journals*, 8(5), 1529-1539. <https://doi.org/10.11216/gsj.2020.05.39996>
- Dias, M., Nascimento, C.; Lima, M.; Santos, A.; Duarte, M.; Rocha, M.; Martins, M.; Mendes, F.; Filho, R.; Marques, L.; Filho, C.C. (2021) Role-Play Simulation on Contract Bidding Negotiation. *GSJ*, 9(9), 486-499. <https://doi.org/10.11216/gsj.2021.09.54036>
- Dias, M., Pereira, L., Teles, A., Lafraia, J. (2023) Show Me Your Hands: A Moderator Effect Analysis on Nonverbal Behavior at the Bargaining Table. *EJTAS*, 1(2), 119-127 [https://doi.org/10.59324/ejtas.2023.1\(2\).12](https://doi.org/10.59324/ejtas.2023.1(2).12)
- Dias, M., Pereira, L., Vieira, P., Barbosa, L., Quintão, H., Lafraia, J. (2023) Mediation & Dispute Board Resolution: A Systematic Literature Review. *GPH-International Journal of Social Science and Humanities Research*, 6(5), <https://doi.org/10.5281/zenodo.7952719>
- Dias, M., Toledo, R., Silva, A., Santos, M., Aragão, M., Junior, M., Rocha, C., Silva, G., Marques Filho, C. (2022) Buyer-Seller Negotiation: Military Cargo Jet Acquisition. *GSJ*, 10(10), 2481-90. <https://doi.org/10.11216/gsj.2022.10.78649>
- Dias, M.; Almeida, F.; Silva; Russo, J.; Machado, V.; Costa, J.; Barbosa, M.; Jornada, F.; Filho, C. (2022) Role-Play Simulation on Vehicle Acquisition: Buyer-Seller Negotiation. *GSJ* (10)8, 1817-28; <https://doi.org/10.11216/gsj.2022.08.77291>
- Dias, M.; Andrade, S.; Silva, M. R.; Teles, G.; Mello, B.; Moura, R.; Salazar, A.; Sotoriva, L.M.; Mariotti, A; Filho, C. (2021) Role-play Simulation on Buyer-Seller Knowledge Transfer. *GSJ*, 9(8), 2340-52. <https://doi.org/10.11216/gsj.2021.08.53672>
- Dias, M.; Duzert, Y.; Lopes, R. (2021) Perspectiva Epistêmica do Processo de Negociação. *International Journal of Development Research*, 11(7), 48803-10. <https://doi.org/10.37118/ijdr.22463.07.2021>
- Dias, M.; Lopes, R. (2021). A Confiança transformativa em negociações. *International Journal of Development Research*, 11(6), pp. 48178-82. <https://doi.org/10.37118/ijdr.22261.06.2021>

- Dias, M.; Lopes, R. (2021). O dilema da confiança aplicado à negociação de escopo em gerenciamentos projetos. *International Journal of Development Research*, 11(8), pp. 49225-30. <https://doi.org/https://doi.org/10.37118/ijdr.22676.08.2021>
- Dias, M.; Lopes, R.; Teles, A. (2020) Nonparametric Analysis on Structured Brazilian Business Negotiations. *Global Scientific Journal* 8(6), 1511-22. <https://doi.org/10.13140/RG.2.2.13318.60482>
- Dias, M.; Silva, L. (2021) Role-Play Simulation on Basic Sanitation Services Contract Negotiation. *Global Scientific Journal*, 9(6), 1081-1098. <https://doi.org/10.11216/gsj.2021.06.51827>
- Dias, M.; Pires, R.; Genial, R.; Santos, P.; Araújo, L.; Moura, F.; Lima, S.; Nascimento, F. Marques Filho, C. (2022) Case Study on Buyer-Seller Negotiation: Ultrabook Government Acquisition. *GSJ* (10)9, 1737-45; <https://doi.org/10.11216/gsj.2022.09.77913>
- Fisher, R. and Ury, W., (1981). *Getting to Yes: Negotiating Agreement Without Giving In*. Penguin Books
- Kissinger, H.A., 1969. *Nuclear Weapons and Foreign Policy*. W.W. Norton.
- Lax, D.A., & Sebenius, J.K. (1986). *The Manager as Negotiator: Bargaining for Cooperation and Competitive Gain*. Penguin Books.
- Navarro, R., Dias, M. (2024) Nonmarket Negotiations: Leveraging Performance when Negotiating with Governments, Influencers, Media, NGOs, Communities and other Key Stakeholders. *BJMAS*, 5(2), 90-113. DOI: 10.37745/bjmas.2022.0460
- Pruitt, D.G. (1981). *Negotiation Behavior*. Academic press.
- Raiffa, H., Richardson, J., & Metcalfe, D. (2002). *Negotiation analysis: The science and art of collaborative decision making*. Harvard University Press
- Rubin, K. H., & Brown, I. D. (1975). A life-span look at person perception and its relationship to communicative interaction. *Journal of Gerontology*, 30(4), 461-468.
- Salacuse, J. (2003). *The Global Negotiator*. Palgrave, Macmillan.
- Salacuse, J. (2006). *Leading Leaders: how to Manage Smart, Talented, Rich and Powerful People*. AMACOM.
- Santos, M. and Dias, M. (2024) The Seven Forces That Shape Trust in Virtual Negotiation: A Qualitative Study. *Open Journal of Business and Management*, 12, 2208-2223. doi: 10.4236/ojbm.2024.124113.
- Santos, M.; Dias, M. (2024). Best Practices for Building Trust in Virtual Business Negotiations. *British Journal of Multidisciplinary and Advanced Studies*, 5(2), 45-66; <https://doi.org/10.37745/bjmas.2022.0450>

- Sartori, S.; Jantsch, M. Dias, M. Navarro, R. (2020) Negotiating with Indigenous Peoples: Land Area Acquisition for the Fulkaxó Reserve in Brazil. *Saudi Journal of Economics and Finance*, 4(9), 457-461. <https://doi.org/10.36348/sjef.2020.v04i09.006>
- Saunders, M.; Lewis, P.; Thornhill, A. (2009). *Research Methods for Business Students*. Prentice Hall, 5th edition.
- Schatzki, M.; Coffey, W. (1981). *Negotiation: The Art of Getting What You Want*. Signet
- Sebenius, J. K. (2013). Level two negotiations: Helping the other side meet its "BATNA". *Negotiation Journal*, 29(2), 167-182.
- Shell, Richard (2006). *Bargaining for Advantage*. Penguin Books.
- Valente, R., and Dias, M. (2023) How To Structure A Retail Pharmacy Business Negotiation. *Gph-International Journal Of Business Management*, 6 (4), 1-15; <https://doi.org/10.5281/zenodo.7817264>
- Weber, L. L. (2010). Expanding the definition of bounded rationality in strategy research: An examination of earnout frames in M&A. University of Southern California.
- Yin, R. K. (2004). *The case study anthology*. Sage.
- Zartman, I. W. (1988). Common elements in the analysis of the negotiation process. *Negotiation Journal*, 4(1), 31-43./2